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The City of the Future**Betting on
Sustainability, Health & Safety**

Throughout history mankind has always wanted to create beauty - as first attempted by Phidias, to go further - as did Columbus, to fly - like Leonardo da Vinci, to climb higher - as Hilary strived for, and even to travel to the moon – as Armstrong did. If these milestones were accomplished, why wouldn't man also have a desire for the best city, an ideal city in which it would be possible to have a high quality of life?

I. THE HAPPY CITY.

Before man can acquire happiness, one must know what it means to be happy. What are the basic conditions to achieve happiness? Happiness is an emotion difficult to explain and even more difficult to reach. However, there are two main conditions that are absolutely essential to be happy: health and safety.

The World Health Organization defines health as: “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. Therefore, one's health is related to equity and social justice, the quality of the environment and living conditions, and cultural richness and diversity. Local matters are also very important and have a great effect on one's health.

On the other hand, safety - as much in its spiritual as in its material meaning - has to do with freedom and democracy, equity and social justice, quality of the environment and living conditions, security and civil protection, as well as with technical measures against natural and manmade risks and disasters.

On these assumptions lie the planners' greatness and servitude. Everything is related to health and safety. And everything deals with happiness.

II. THE MYTH OF SISYPHUS.

Has any man reached the healthy city; the safe city; the happy city? According to Homer, Sisyphus son of Eolus was “the most wise and prudent of the men.” He founded the city of Ephyra - later known as Corinth – that was made to be safe with strong walls, and its water supply was obtained from

Asopus. Sisyphus also founded the Isthmic Games, and even blocked all sickness outside the city gates.

Thus, Corinth enjoyed perfect safety and health. But Sisyphus unleashed the jealousy of the gods because he was able to achieve safety and health. The vindictive gods condemned him to push a big rock up a steep slope. Since then, such a great accomplishment has never occurred again. Also since that time, a Sustainable City is considered a goal in need of permanent work, always harder, and which will never be totally fulfilled.

What can we do to ensure that Sisyphus's strength will be stronger than gravity? Which are the negative factors that, such as gravity, degrade the city and push it towards sickness and insecurity? Which are the positive factors, and where do they have to be implemented to counteract the urban degradation promoted by the negative one?

III. WHERE? URBAN DOMAINS AND FACTORS.

The city – a complex and wonderful organism – constitutes a unity in itself. However, for the sake of time we can summarize it the complexity of the city by considering four urban domains: social, cultural, economic, and environmental. Each of these domains are constituted by different factors, and the most important are:

Social Domain

- demography
- density
- housing and employment
- facilities
- health and safety

Cultural Domain

- natural heritage
- manmade heritage
- image
- identity
- way of life

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Economic Domain

- economy
- financing
- management
- maintenance
- public participation

Environmental Domain

- accessibility and mobility
- uses and functions
- infrastructure
- natural resources
- manmade resources

All domains and factors constitute just one unity that we study dissociated in its parts because it is easier and makes our job easier.

IV. WHY? DEGRADATIONS & ACTIONS.

The city suffers from many negative influences on each of its four domains and their twenty factors. These negative influences can lead the City to roll slowly but inexorably down the slope to its degradation.

Degradation may take place on all factors of any of the urban domains. Next I will comment on degradation of some of the factors in each domain - concentrating on those that are more related to health and safety – and on some of the corresponding actions needed to fight for the happy city.

Degradations to the Social Domain

Mobility of People:

The easy mobility and the flow of people from different cultures, moving freely all over the country and the world, create another social and cultural challenge yet to be solved. Aggression, violence, racism, segregation, and isolation are common social attitudes.

Housing and Employment:

Housing and employment have become huge problems. These social problems also create exclusion, lack of equity, and segregation. Unemployment contributes to the growth of urban insecurity, and job shortage creates negative psychological attitudes such as depression, stress, and violence. The difficult access to decent housing promotes an unhealthy lifestyle.

Actions for the Social Domain

Housing:

Promoting actions for housing have to consider two main aspects: to produce cheaper and more environmentally friendly dwellings, and to finance easy access to them. There are different methods for developing different housing typologies. A clear and imaginative involvement of the different partners is necessary. Users, administrators, land owners, financiers, and developers need to realize new urban developments. We need innovative and cooperative systems among the different partners to reduce the housing deficit. Proper financial systems for building and acquisition of standard houses are crucial, along with flexible mortgage systems.

Facilities:

It is necessary to create new, multifunctional buildings. and to redesign existing ones to enable them for different types of facilities which have to form a balanced network and furnish easy access for all citizens. New social facilities need telematic systems offering information, education, and training. Social community committees have to be created and become responsible for running and maintaining these facilities.

Health & Safety:

It is necessary to develop a comprehensive public health and safety program that gathers and co-operates with all the actions that are before related. Almost everything affects health and safety. It is also essential to provide easy access everywhere for disabled citizens, and to promote education and training on health and safety in order to reach a new lifestyle, through traditional media and telematic systems.



Plan for Arganda del Rey, Madrid, by Plan & Design 1999

Degradations to the Cultural Domain

Heritage:

The natural and manmade heritage is not well maintained. The use of new unfitted architectural patterns destroys heritage and replaces the original identity with an anonymous and unfriendly environmental structure. The urban image loses not only its formal character but also its collective memory. There is no more urban image for the community. This means a lack of roots that makes citizens feel as though they are foreigners in their own city, as they are not part of their own city.

Cultural Diversity:

The diversity of cultures is not yet understood as able to enriching human behaviour, but it is seen as a dividing factor. It leads to a wide abyss among different groups. This increases exclusion and promotes social aggressive attitudes. Customs, values, and culture are imposed by certain groups over others creating more exclusion and segregation. Also, it banished the cultural identity of the weakest groups, making it easy for them to be manipulated, subduing them or, even worse, using them as a violent instrument.

Actions for the Cultural Domain

Heritage:

To protect, to rehabilitate and to increase the monuments and the cultural heritage, the urban imaginary and identify.



Streetscape in Arganda del Rey, Madrid, by Plan & Design 1999.

Rehabilitation and re-use of historic buildings and spaces. Recovery of the traditional image to enhance the identity and to promote new economic opportunities (as tourism, pilgrimage, spa-health resort, fairs, etc) and new jobs. Creation of new quarters with strong identity. Maintenance and promotion of cultural manifestations as traditions, festivities, dances, etc. incorporating other rich additional values from the coexistence of different cultures.

Social Relationship:

To obtain a better social relationship through the knowledge and respect of social customs. Reconstruction of the city *agora* where all citizens could participate and get involved in city life, sharing responsibilities in the present and for the future. Education and awareness of all citizens, not only the existing residents, but also newcomers to coexist and to share different cultures, feelings, and lifestyles.

Lifestyle:

To develop an easier urban lifestyle. Creation of a new social and city administrative system that conforms to smaller community units so that people may participate more easily and become more acquainted with the requirements of citizenship.

Degradations to the Economic Domain

Facilities, Service, & Infrastructure Maintenance

The maintenance of common structures (facilities, services and infrastructures) turns into a problem. There are not enough funds and means for the level of quality that these structures require for a healthy quality of life in the city. The worst-case scenario situation becomes normal and generates neglect by the citizens. Sickness, vandalism, aggression, insecurity, and health risks are becoming normal characteristics of the city.

Actions for the Economic Domain

Economy:

The first action should be to define ad hoc policies for obtaining urban economic sufficiency. Next, there should be a selection of a suitable multifunctional city models and the promotion of certain specializations as new fields for employment. Jobs should also be created through environmental measures and as a means to generate attractive and healthy environment for new investments.

Financing:

Local finances should be improved through diverse and innovative actions.

Co-participation in the national and regional budgeting is also helpful, along with the creation of mixed public-private enterprises for developing projects, facilities, housing, etc. Another action should also be to attract new sustainable enterprises through awards, fiscal and tax incentives, etc.

Maintenance:

One of the first actions should include to design a maintenance plan and budget for services and facilities with accurate future adjusting. Planning for future needs should be in balance with the actual maintenance capacity. There should also efforts to improve citizens' awareness through educational programs to show that maintenance is a social concern in which everybody is responsible.

Total Public Participation:

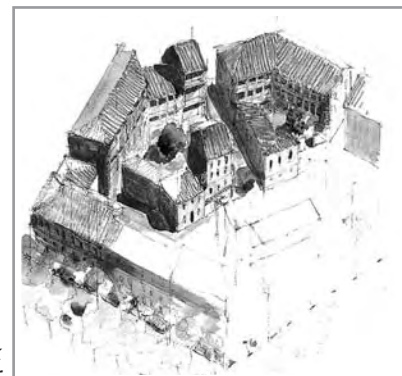
Action should be taken to develop a relaxed climate in which citizens' participation and partnership will be possible. There should be definition of the lacks, problems, wishes and aims of the citizens. And finally, establishment of flexible means of communication between authorities and citizens and creation of more interactive information systems. Bottom-up decision-making should be encouraged instead of the top-down ones, as well as an increase in public awareness by marketing new ideas.

Degradations to the Environmental Domain

Traffic, Accessibility, and Road Layout:

These factors are strongly interrelated. Growing mobility produces higher levels of traffic congestion, reduces accessibility, and collapses the road layout. Congestion means pollution because of emissions, vibrations and noise; a decrease in urban functionality; longer time for movements; and additional costs for the citizens. Costs are not only economic but also physical and psychological - sickness, stress, and even a potential nervous breakdown. Street layouts become inefficient, and streets are simultaneously becoming more unfriendly for pedestrians.

The space that is denied for the citizens is generously given to the machines. When these factors do not work, surface public transportation is affected by congestion, citizens suffer the consequences, and in a vicious cycle private cars replace public modes of transportation. The lack of quality and quantity of public transport affects the quality of life, social cohesion, and the city's economic perspective.



Sketches of block interiors for Arganda del Rey, Madrid,

by Plan & Design 1999.



Infrastructure Services:

When existing infrastructure services or the budget are insufficient, the existing structure is not able to absorb new requirements, nor it is able to satisfy future developments. Air, land, and surface pollution increase. Garbage and waste without proper treatment grow to unsustainable levels and unhealthy conditions; noise pollution reaches unacceptable levels causing alienating states of mind. The urban environment is unfriendly and sick. Degradation and pollution foster healthy and social problems like sicknesses, poverty, isolation and violence.

On the other hand, some infrastructures when broken such as nuclear power stations, or even when they work perfectly such as high tension cables or low frequency radiations from certain home appliances and mobile phones generate serious diseases, cancer, and even death. Eleven million children die every year in the world due to diverse types of pollution. The Alps are still contaminated because of Chernobyl.

Actions for the Environmental Domain

Traffic:

Action should be taken towards a comprehensive traffic

program that reorganizes the city's mobility through progressive stages. Then, to reduce the use of private vehicles, public transportation should be promoted through the coordination between different modes.

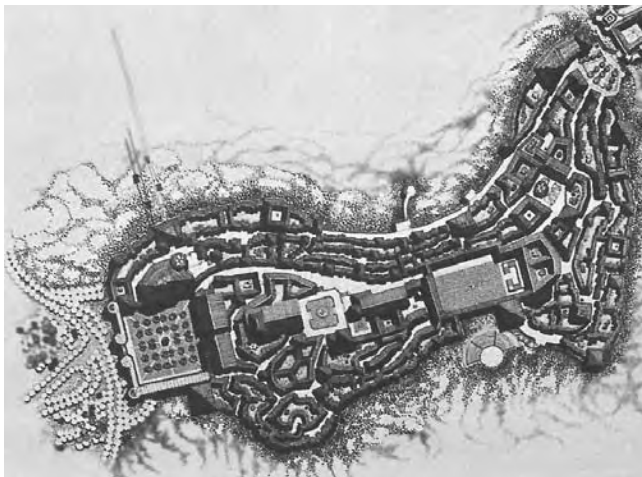
Also, it is important to establish a network of different types of parking (for residents, visitors, commuters, etc.) and to promote alternative means of transportation (trams, new generation of buses, electric cars, bikes, etc.). There needs to be devotion and devolution of the city centre to pedestrians, and a creation of a pedestrian system linking all city neighborhoods. Reduction of air and noise pollution should also be in the agenda.

Mixed Uses:

Action should be taken to mix environmentally friendly urban uses that are compatible and harmonious in a balanced city structure. There should also be an allowance of traditional mixed uses and a horizontal diversity of uses. Densification of tertiary areas in the city centre and main urban corridors will enhance the interrelationship among different city districts. Derelict land should be reused for facilities and new housing, and industrial traffic and pollution should be toughly regulated and controlled.

Green & Blue Areas:

Action is necessary for the maintenance, the growth, and the improvement of the green and blue areas, and for the creation of urban corridors linking all city districts.



The Spanish Village, part of the Master Plan for the Centro Español Iberoamericano in Caracas, Venezuela, by Plan & Design 1979.

Comprehensive Infrastructural System:

This needs to be developed in successive stages. Building licences should only be given in fully urbanized land. There should be an introduction of two-water supply system and sewerage. Appropriate waste collection services should be used to encourage waste separation (re-use and recycling).

Urban Environment:

An ecosystems approach should be utilized to draw up an integrated program for the urban environment: indicators should be defined, and resources and nature should be gradually implemented. There should be an establishment of a new "Health Impact Assessment". Maintenance and rehabilitation of urban environment is required to balance the ecosystem and to improve health and security. Use water, energy, land and raw materials in a sustainable way.

V. HOW? INTERACTIONS.

All four domains and their twenty factors are permanently and intimately interrelated. If any action - positive or negative - happens in one domain and in factor it will sooner or later have repercussions in all other domains and factors. A single interaction causes four hundred stronger or weaker reactions. Each of these reactions function as new actions and by turn generate a new set of reactions, and so on.

This is the reason why the city is such a complex, delicate, and sensitive system. There are extensive ranges and intensities, from the weakest to the strongest reaction. Actions can not be isolated because you risk solving one problem with an action which may be generating negative reactions on the others.

VI. FINAL RECOMMENDATIONS.

I said that a large number of actions and strategies are needed to generate the city of the future – the sustainable, safe & healthy city. It is very difficult to address only a few main recommendations as a closing statement for this presentation, but it is possible to sum up some basic, useful, and positive principles:

Holistic:

Programs have to be comprehensive, not concentrating in a single domain or factor but considering all of them. Actions have to be put in practice in a combined way, never isolated, because the city is just like a surprising chest of drawers from a Marx Brothers movie: when a drawer is closed others get open by themselves, and vice versa. If we need to open or

close any drawer, we need to hold all of them down... and nevertheless, in spite of it all, we will find out that often there are more drawers than we would have ever thought...

Balance:

The city is a unique system, and its whole structure and every one of its subsystems, districts, and buildings have to be balanced. The city is just like a sail boat in the sea: every single of its pieces and tools should be running properly to have it get happily at the harbor. If the engine does not run or the rudder is seized up, if the helix breaks down or the kitchen is empty, the boat will not sink, but will drift, without any control and, sooner or later it will crash into a rock or get stranded in a shoal.

Sustainability:

We must reduce until we completely abolish the wasting and the lavish use of the natural, cultural, and economic resources. Re-use, re-habilitation, re-cycling, re-restoration, re-organisations... compose a symphony in "RE" (the Spanish word for the note D) which sounds much better in our times. This is because the city and the whole world are just like a house of a cautious family where everything is used and nothing is either destroyed or wasted. This family will never get poor but, on the contrary, it will get richer. A fool that wastes his resources will soon be in need, starving, sick, and poisoned.

Participation:

Participation and partnership—versus tribalism—has to become a "life style" that will be more and more essential every day. Because the city is just like a horse-drawn cart: we, the citizens, are precisely the horses. Having the best cabman is not enough; it is essential that the horses go before the cart, as it is essential that each and all of us keep going at the same time and in the same direction. The only way to go forward, speedily and secured, is if all agree on when we have to pull, on the direction, and on the speed.

Culture:

Education, awareness, responsibility, respect, solidarity; that is, culture—versus fundamentalism—is the fundamental stone on which to build a free, safe and healthy society. Because the city is just like a motor car: if the driver does not know how to drive or does not know how to preserve it well, if he is unaware of the danger that it represents and does not have the essential sense of responsibility—that is to say, if he lacks a "car culture"—even the best driver will crash into

a tree some day or, what is worst, into a child. Culture is the "driving permit" to be a good citizen.

And Love:

Know the city! Love the city! Take care of the city! Because cities are just like that wife of "The Song of the Songs": "beautiful in the midst of all the women" and whose "voice is sweet and face charming".

We have to keep in mind that the city is just like the surprising Marx Brothers's chest of drawers, just like a boat ashore, just like the house of a cautious family, just like a cart of horses, just like a motor car, and just like a beautiful wife. A city is like a marvelous box of surprises.

In short, we can assure that the City of the Future – The Safe & Healthy City –is neither an unattainable utopia, nor a fantastic dream of a planner: the City of the Future is just the City in which every one of us lives now, but where positive actions and strategies will be carried out on in a comprehensive, balanced, decided, conscious, right, and energetic way - free of any type of corruption and privilege.

There is no "magic" or "scientific solution"! There is only: knowledge, decision, willpower, strength, imagination, honesty, participation, a lot of work, and, on top of everything, a huge amount of... LOVE!!